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Exploring the impact of the first rule of Functional Analytic Psychotherapy on fear of intimacy, vulnerability, and responsiveness: An analog process analysis

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Abstract

Functional Analytic Psychotherapy (FAP) is an efficacious but complex treatment. Despite a solid empirical foundation, research on the treatment is limited. While five process-focused rules guide the treatment, developers made an early statement that they believed only the first rule of FAP, watching for the occurrence of daily life problems occurring in the therapy session, was needed to guide treatment effectively. The current study was designed to assess this claim through the use of a FAP analog procedure in hopes of increasing the accessibility of the treatment and thus facilitating implementation efforts. In this study, 81 undergraduate participants engaged in a closeness-generating class in which they were randomized into two groups. In the experimental condition, research assistants had access to a self-report measure regularly used to inform clinicians about potential daily life problems that may occur in the therapy room. No such information was available to the research assistants in the control condition. Findings indicated that while fear of intimacy, a core construct in FAP, decreased on average following the procedure, the experimental condition had no impact on this change. Further, when research assistants had access to the daily life problem information, participants found them less effective at responding to disclosures. These findings suggest the importance of a nuanced case conceptualization, the limitations of the first rule of FAP, and the strengths and limitations of the use of an analog paradigm to study FAP.

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Declaration of competing interest

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CRediT authorship contribution statement

Daniel W.M. Maitland: Writing – original draft, Writing – original draft, Supervision, Software, Resources, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Cambria L. Davis:** Writing – original draft, Writing – original draft, Project administration. **Elizabeth J. Farren:** Writing – review & editing, Writing – original draft, Project administration. **Ariana Cunningham:** Writing – review & editing, Writing – original draft, Project administration. **Carissa Zirbel:** Writing – review & editing, Writing – original draft, Project administration. **Amanda M. Muñoz-Martínez:** Writing – review & editing, Writing – original draft.

Keywords

Social intimacy; Functional analytic psychotherapy; Component analysis; Mechanism of action; Analog study

1. Introduction

Functional Analytic Psychotherapy's (FAP) (Kohlenberg & Tsai, 1991) proposed model of therapeutic change emphasizes the use of principles of behavior to shape target behaviors as they occur in session. Seminal writings on FAP identify three forms of target behaviors labeled Clinically Relevant Behaviors (CRBs) (Kohlenberg & Tsai, 1991). CRB1s are the client's daily life target behaviors that occur during therapy sessions, CRB2s are improvements in the targeted CRB1s occurring during therapy sessions, and CRB3s are client-described causes of their behavior. Given that these target behaviors exist in the interpersonal realm across settings (both therapy and day-to-day life), therapist responses to CRBs are structured to reflect interactions seen in daily life and work towards building a genuine emotional connection with the client (Kohlenberg et al., 1993). This use of naturalistic reinforcement (Ferster, 1967) in FAP results in a strong therapeutic alliance with the client and an inherently intimate atmosphere during the session that can be generalized to the client's daily life (Maitland, Petts, et al., 2016) while simultaneously decreasing distress.

An extensive body of empirical evidence supports using FAP to improve interpersonal relations and as a process-based intervention for mental health issues (Kanter et al., 2017). FAP has effectively been implemented in the treatment of personality disorders (Callaghan et al., 2003), chronic pain (Vandenberghe et al., 2004), panic disorder without agoraphobia (López Bermúdez et al., 2010), Obsessive-Compulsive Disorder (Vandenberghe, 2007), Major Depressive Disorder (Ferro--Garcia et al., 2012), and substance use (Aranha et al., 2020). While the support for the treatment is extensive, most FAP efficacy research has employed controlled and uncontrolled single-subject designs (Kanter et al., 2017; Singh & O'Brien, 2018), limiting the impact of the findings of the treatment when implemented as a standalone intervention. To date, only one randomized clinical trial utilizing FAP as a standalone treatment has been published (Maitland, Petts, et al., 2016). Rather, group design studies have emphasized the integration of FAP and other established treatments. For example, FAP has been incorporated into ACT (Gifford et al., 2011; Paul et al., 1999), DBT (Reyes-Ortega et al., 2020), CBT (Kohlenberg et al., 2002; Pedersen et al., 2012), and Behavioral Activation (Manos et al., 2009; Montaña et al., 2018).

One of the factors limiting research on FAP is the principle-driven nature of the treatment. Implementation of FAP is guided by five rules (Kohlenberg & Tsai, 1991) directly derived from behavior analytic principles (Kohlenberg & Tsai, 1995). Rule 1 instructs a therapist to actively look for instances of CRBs based on an idiographic case conceptualization. Rule 2, which instructs the therapist to evoke CRBs, may be executed by focusing on issues that organically arise within the therapeutic relationship, focusing on the client's present feelings, or intentionally creating situations that are contextually similar to the environment

in which CRBs occur. Rule 3 encourages therapists to respond contingently to CRBs. When engaging in Rule 4, the therapist observes the impact of their responses to CRBs on the client's behavior to identify if their response had the intended effect on future client behavior. Finally, Rule 5 instructs therapists to interpret and generalize the improvements in CRBs due to the therapy interaction to the client's daily life. This generalization results in improved interpersonal functioning and reductions in distress as a function of the therapist's effective implementation of the rules of FAP (Maitland & Gaynor, 2012).

Theoretical writings on FAP propose that therapeutic change occurs after the client's in-session behavior changes, and the client generalizes those behavior changes to behavior occurring outside of therapy (Kohlenberg & Tsai, 1991). Thus, interactions within the therapeutic relationship are essential for understanding novel outside-of-session behavior. The therapeutic alliance present in FAP is often powerful and has been theorized to be an indicator of FAP's success (Maitland & Gaynor, 2012). Higher evaluations of the therapeutic alliance are associated with better out-of-session interpersonal relations and may indicate effective implementation of FAPs proposed mechanism of action, contingent responding to CRBs (Maitland & Lewis, 2022). FAP's proposed mechanism of therapeutic change is often evaluated with the Functional Analytic Psychotherapy Rating Scale (FAPRS), a method for assessing FAP-consistent client and therapist behavior (Callaghan & Follette, 2008). Seminal studies that implemented the FAPRS suggest that client behavioral improvements result from therapist FAP-consistent behavior, supporting the proposed mechanism of change (Callaghan et al., 2003, 2008). Additional studies found that therapist-contingent responses predictably shaped client in-session behavior (Busch et al., 2009). Associations between contingent responses from therapists and client improvements in psychological distress and behavioral problems have also been found (Busch et al., 2010; Kanter et al., 2017; Maitland & Lewis, 2022; Muñoz-Martínez et al., 2022). This evidence suggests a series of events: therapist shaping of behavior, generalization of behavior improvements outside of therapy, and improvements in distress are indicative of the effectiveness of implementing the five rules of FAP.

Although the framework for FAP includes five rules, it has been argued that only the first one is necessary and that the first rule cannot be overemphasized in promoting positive outcomes (Kohlenberg & Tsai, 1991, p. viii). In FAP, therapists use functional analysis to classify behaviors that operate as CRBs (Kanter, Weeks et al., 2009). There are various techniques to conduct a functional analysis (i.e. functional assessment, case conceptualization); one system that is particularly useful in FAP is the Functional Idiographic Assessment Template (FIAT) system (Callaghan, 2006). The FIAT system is a behavioral and idiographic approach to analyzing clients' interpersonal strengths and deficits. The FIAT-Questionnaire (FIAT-Q) is a psychometrically sound (Darrow et al., 2014) self-report version of the FIAT, which assesses several functional classes of behaviors and client strengths or weaknesses in those classes of behavior. This tool can inform the therapist of potential client problem behaviors, which can assist in identifying CRBs and ultimately guide the implementation of Rule 1 and, in theory, the rest of the five rules.

To date, no study has experimentally investigated the effects of implementing Rule 1 of FAP in isolation. Based on the review of the extant literature indicating a need to assess

the rules necessary and sufficient for the implementation of FAP, we designed a study to assess the importance of Rule 1 in FAP experimentally. Given the complexity of FAP as an intervention, we utilized the “Fast Friends” paradigm (Aron et al., 1997) as an analog for FAP to facilitate mechanism of action research, as has been done in previous investigations (Haworth et al., 2015). Researchers argue that in this paradigm, in a manner akin to FAP therapists working with their clients, research assistants could evoke and reinforce vulnerable behaviors, which can frequently be mapped onto CRBs in FAP (Maitland et al., 2016). Given suggestions that Rule 1 alone is sufficient to implement FAP (Kohlenberg & Tsai, 1991), the current study examines whether awareness of interpersonal tendencies as informed by the FIAT-Q would be sufficient to decrease fear of intimacy through naturalistic, contingent reinforcement delivered by the research assistant (Ferster, 1967). While previous studies have measured the therapeutic relationship predicting change in interpersonal relationships, few have explicitly analyzed fear of intimacy with the therapist, a construct that explicitly includes a willingness to be vulnerable (Maitland & Lewis, 2022). By assessing if the Fast Friends procedure can reduce fear of intimacy with the research assistant, the validity of the analog can be better assessed by better mapping onto the in-session behavior and constructs of interest in FAP. Further, fear of intimacy may be highly prevalent in non-clinical samples, especially in 18–25-year-olds. Previous studies suggest that approximately 80% of this age group reports being lonely sometimes, usually, or all of the time (Cigna, 2022). Given that fear of intimacy may be a meaningful facet of loneliness, as it captures a willingness to be vulnerable, and thus, conceptually ability to build connection (Maitland, 2020), experiments with this population may be especially pertinent.

The current study is designed to address two hypotheses. First, it was hypothesized that the FAP analog would reduce the fear of intimacy between participants and research assistants. Second, it was hypothesized that the experimental manipulation of watching for potentially problematic social behaviors would lead to larger decreases in the participant’s fear of intimacy in the interaction than in the condition where no FIAT-Q data was available to the research assistants. Assessment of participant vulnerability and perceived responsiveness was conducted to facilitate understanding of the process by which changes in fear of intimacy may have occurred.

2. Method

2.1. Participants

The analyzed sample for the current study comprised 81 undergraduate students recruited from universities in the midwestern and central United States who participated in the study for extra credit. Students were recruited through study management software utilized by the department of psychology at each of the respective universities. In the description provided on the software, potential participants were told they would be engaging in a closeness-generating task with a research assistant. Students who were enrolled in psychology courses self-selected into the study frequently based on requirements to participate in research or extra credit offered for participating in research. All individuals over the age of 18 who were fluent in English were invited to participate. Eighty-three individuals signed up for and

completed the study; two participants provided incomplete data and were excluded from the analysis. Of the individuals included in the analysis, fifteen were from the university in the central United States, and sixty-six were from the university located in the Midwest. The average age of participants was 19.88 ($SD = 3.4$), ranging from eighteen to thirty-eight years old. Participants were able to enter their demographic data using a free response textbox. The majority of the sample identified as female (66.3%), with the remainder identifying as male (26.5%), non-binary (3.6%), or *trans*-female (2.2%). Most of the sample identified as White/Caucasian/Euro-American (84%); however, individuals who identified as African American/Black (6.2%), more than one race (4.9%), Asian (3.7%), and Hispanic (1.2%) were also represented. Individuals also self-identified ethnic identities as Hispanic or Latino (6%) or not Hispanic or Latino (91.6%).

2.2. Procedure

All aspects of the study were approved by the Human Subjects Institutional Review Board before any aspects of the study took place. Research assistants (RA) in the study were undergraduate psychology majors or first year graduate students in a clinical psychology Ph.D. program. Eligible participants met with an RA in a common space before being led to a private experiment room. There, participants completed an informed consent process before completing an assessment battery, which included approximately 30–45 min' worth of questionnaires, including measures not utilized in the current investigation. Participants were randomized into one of two conditions (RA aware of interpersonal tendencies; $n = 39$ or a control group; $n = 42$ where the RA was not aware of any interpersonal tendencies of the participant). In both conditions, participants and RAs engaged in a dyadic interaction that involved answering 20 questions asked to one another, a subset of questions developed by Aron et al. (1997), which were identical to those used in Study 2 of Haworth et al.'s (2015) FAP analog study. The instructions for the task were identical to that of Aron et al.'s (1997) seminal study and guided participants and research assistants to get close to their partners by engaging in a 45-min sharing game. The instructions state "This is a study of interpersonal closeness, and your task, which we think will be quite enjoyable, is simply to get close to your partner. We believe that the best way for you to get close to your partner is for you to share with them and for them to share with you. Of course, when we advise you about getting close to your partner, we are giving advice regarding your behavior in this demonstration only, we are not advising you about your behavior outside this demonstration." The question set was designed to increase the frequency and magnitude of participant vulnerability as the questions progressed. Readers can consider the following examples to contextualize this design: the first question was, "Would you like to be famous? In What way?" The 17th question was, "If you had to sacrifice your own life for one person, who would you choose and why?" Participants and RAs took turns responding to question prompts and providing feedback to one another. In the case of the RA, they gave an individually tailored response consistent with naturalistic reinforcement principles intended to increase the likelihood of future disclosure during the interaction. Interactions were limited to 45 min maximum to attempt to control for any time-based effect. After ten questions, participants completed an assessment of their vulnerability and perceived responsiveness before continuing to the second half of the questions. At the conclusion

of the questions, participants completed an assessment of their fear of intimacy with the research assistant and their experience of vulnerability and perceived responsiveness.

2.2.1. Research assistant training: RAs were trained by the first author, a certified trainer and expert in Functional Analytic Psychotherapy. Training took place in weekly group trainings and in ad-hoc meetings as needed. RAs were first trained in understanding the FIAT-Q, this training focused on understanding the concept of functional classes of behavior and on understanding how answers to specific questions on the FIAT-Q could indicate potential CRBs. Consistent with the hypothesis of the study, training emphasized noticing or observing all CRBs with an emphasis on CRB1s and CRB2s given that the experiment was not designed to facilitate participant reflection on their own behavior, an indicator of CRB3s. RAs then practice applying this didactic instruction by completing the FIAT-Q, exchanging the FIAT-Q with a peer, engaging in the Fast Friends procedure, and discussing observations with their partner. This process was supervised by the first author who offered reinforcement of presumed accurate interpretation and differential reinforcement when RA behavior was inconsistent with effective responding to hypothesized CRBs. RAs were also trained to enhance their skills in therapeutic responding. This training consisted of didactic review and practice of Motivational Interviewing techniques, emphasizing styles of reflection (Miller & Rollnick, 2023), review and practice of Dialectical Behavior Therapy validation techniques (Linehan, 1997) and use of empirically established FAP training techniques to improve therapeutic responsiveness (Kanter et al., 2013; Keng et al., 2017; Maitland, Kanter, et al., 2016). RAs practice these techniques with each other independently and under the supervision of the first author who provided coaching to shape effective behavior. Prior to being able to conduct the experiment, each RA received a “sign off” from the first author when they had demonstrated competence in the behavioral repertoire needed to effectively conduct the study which included ability to translate FIAT-Q responses into hypothesis about CRBs, ability to observe potential CRBs during the Fast Friends procedure, ability to demonstrate self-disclosure during the Fast Friends procedure, and ability to effectively respond to others during the Fast Friends procedure.

2.2.2. Experimental condition - awareness of interpersonal tendencies condition: Participants in the experimental condition completed the FIAT-Q and the standard assessment battery administered during the experiment. Participants in this condition were given the FIAT-Q in a paper and pencil format before completing the other assessments and instructed to complete the questionnaire and hand it to the RA. After completing the FIAT-Q, the participants completed the rest of the questionnaires while the RA reviewed their FIAT-Q answers and formulated conceptualizations about how these behaviors could manifest in the room and could function as CRBs. Thus, the experimental condition provided RA with a conceptualization of CRBs they could watch for, while the control condition did not have any potential CRBs to track. As such, RAs with participants in the experimental condition could engage in FAP Rule 1, and were instructed to do so, while those in the control condition could not.

2.2.3. Control condition – No awareness of interpersonal tendencies

condition: In the control condition, participants completed the standard assessment battery while the research assistants occupied themselves on a laptop computer or with readings. Thus, they engaged in functionally the same behavior as in the experimental condition but were unaware of the participant's interpersonal tendencies and received no instruction to watch for potential CRBs.

2.3. Measures

2.3.1. Functional Idiographic Assessment Template-questionnaire: The FIAT-Q (Callaghan, 2006) is an assessment tool that was developed to efficiently gather information about classes of behavior that are commonly present in FAP as CRBs. The questionnaire is based on the FIAT system and allows for standardized tracking of interpersonal behaviors in 5 domains: Assertion of needs and values (Class A); bidirectional communication or giving and receiving feedback from others (Class B); responding to conflict in social interactions (Class C); disclosure or interpersonal intimacy (Class D); and the experience and expression of emotions (Class E). The measure has excellent internal consistency ($\alpha = 0.94$) (Darrow et al., 2014), and test-retest reliability at one month indicated no significant difference between responses. In the current study, the FIAT-Q was used to assist research assistants in identifying potential classes of behavior that caused participants difficulty in their day-to-day lives.

2.3.2. Fear of intimacy scale: The Fear of Intimacy Scale (FIS; Descutner & Thelen, 1991) is a measure that captures an individual's willingness to make personal disclosures and long-term connections with a real or imagined meaningful other in their life. Items on the FIS are measured on a 5-point scale where higher scores indicate more fear of intimacy. The measure has excellent internal consistency ($\alpha = 0.97$). The fear of intimacy scale is regularly used in FAP research as it is consistent with the conceptualization of CRBs in the interpersonal domain (see Maitland, Petts, et al., 2016). In the current study, the FIS was the primary predictor variable in a regression model to understand participant vulnerability and perceived responsiveness.

2.3.3. Vulnerable self-disclosure scale: Participant vulnerable self-disclosure (Vulnerability) was measured using a measure developed by Manbeck et al. (2020). The 10-item measure asks participants to evaluate various components of vulnerability, such as "In this interaction, I shared things that I do not tell other people" on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). High scores on the measure indicate higher self-reported levels of vulnerability. Previous studies have suggested adequate internal consistency ($\alpha = 0.76$).

2.3.4. Perceived responsiveness scale: Participants perceived responsiveness (responsiveness) was measured using a novel measure. The 11-item measure is similar to the measure used to assess participant's vulnerable self-disclosure. The first question is a true-false question that asks participants if they did something during the interaction that made them feel emotionally vulnerable. Participants only answered the rest of the measure if they answered true to the first question. The other ten questions assess participant perception

of how well the research assistant responded to the vulnerability. For example, one of the items on the measure asks, “After I made myself vulnerable, the other person did their best to make me feel safe.” All items were answered on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree), with higher scores indicating more responsiveness. Internal reliability of the measure has not previously been established; exploratory analysis in the current sample indicated unacceptable internal consistency at both the mid ($\alpha = 0.39$) and post-treatment ($\alpha = 0.47$) assessments. An exploratory factor analysis was conducted, which suggested a two-factor solution that removed three of the ten questions from the measure. The resulting measure had a higher internal consistency ($\alpha = 0.61$) and consequently was utilized in all analyses.

2.3.5. Fear of intimacy with the therapist: The Fear of Intimacy Scale Therapist, developed by Maitland and Lewis (2022), was utilized to assess participant fear of intimacy with the research assistant. The measure uses the same items of the FIS but removes all questions related to romantic or long-term feelings of connection. Items are answered on a scale of 1–5 and has a possible score range of 20–100, with higher scores indicating higher levels of fear of intimacy. Exploratory analysis of the internal consistency of the Fear of Intimacy Scale Therapist demonstrated adequate internal consistency in the current study at both the pre ($\alpha = 0.76$) and post ($\alpha = 0.71$) timepoint of the current study. Given the standard deviations at the pre-experiment timepoint, reliable change on the measure was 18.22.

2.4. Data analysis plan

To test the study’s hypotheses, we conducted two-way mixed analyses of variance (ANOVAs) using process or outcome variables as the dependent variables. Each analysis utilized the condition as the between-subjects independent variable. Time was used as the within-subjects independent variable with slightly different measurement periods for process and outcome measures. Fear of Intimacy with the Research Assistant was measured pre- and post-, reflecting the experience of connection throughout the experiment. This timing differs slightly from our process variables of vulnerability and responsiveness, which were captured midway through the experiment and post-experiment. The time points utilized for our process variables reflect the need for aspects of the experiment to occur in order to measure vulnerability and responsiveness.

3. Results

Means and standard deviations for all variables by condition and time are presented in Table 1.

3.1. Fear of intimacy

An independent samples *t*-test was conducted to assess if participants differed in fear of intimacy based on the condition that they were randomized to. Findings indicated that there was no statistically significant difference in fear of intimacy based on group $t(69.275) = -0.94, p = 0.35$.

3.2. Vulnerability

A Chi-Square test was conducted to assess if participants were more likely to make themselves vulnerable in one of the two conditions. Results suggested no significant difference in participants becoming emotionally vulnerable as a function of condition as indicated by the responsiveness questionnaire that assessed if a person had made themselves vulnerable $\chi^2(1, N = 81) = 0.036, p = 0.849$. A mixed ANOVA was conducted that examined the effects of time and condition on participant-reported vulnerability. Results indicated that while there was a significant effect of time on reported vulnerability Wilk's $\lambda = 0.609, F(1, 63) = 40.503, p < 0.001$ multivariate $\eta^2 = 0.391$ but no significant effect of condition $F(1, 63) = 0.826, p = 0.37, \eta^2 = 0.01$ or interaction of time and condition on vulnerability Wilk's $\lambda = 0.992, F(1, 63) = 0.510, p = 0.48$ multivariate $\eta^2 = 0.01$. A linear regression analysis was conducted to assess if participant general fear of intimacy predicted their willingness to be vulnerable during the experiment. Findings indicated that fear of intimacy did not significantly predict vulnerability at the midpoint of the experiment $R^2 = 0.03, F(1, 62) = 2.94, p = 0.09$ but did significantly predict vulnerability for the second half of the experiment $R^2 = 0.15, F(1, 63) = 10.95, p = 0.002$.

3.3. Perceived responsiveness

A mixed ANOVA examined the effects of time and condition on participant-reported perceived responsiveness. Results indicated a significant interaction of time and condition on perceived responsiveness Wilk's $\lambda = 0.887, F(1, 35) = 4.471, p = 0.042$ multivariate $\eta^2 = 0.113$. Post-hoc repeated measures ANOVAs were conducted on each level of condition. A statistically significant difference between time points was identified for both the control condition ($F(1,19) = 15.262, p < 0.001$) and the experimental condition ($F(1, 16) = 19.946, p < 0.001$). A linear regression analysis was conducted to assess if participant general fear of intimacy predicted their responsiveness for the first or second half of the experiment. Findings indicated that fear of intimacy did not significantly predict perceived responsiveness during the first ($R^2 = -0.01, F(1,37) = 0.25, p = 0.62$) or second half ($R^2 = 0.01, F(1, 55) = 0.62, p = 0.43$) of the experiment.

3.4. Fear of intimacy with RA

A mixed ANOVA was conducted that examined the effects of time and condition on participant-reported fear of intimacy with the research assistant. Results indicated that there was a significant effect of time on reported fear of intimacy Wilk's $\lambda = 0.423, F(1, 79) = 107.56, p < 0.001$ multivariate $\eta^2 = 0.577$ but no significant effect of condition $F(1, 79) = 0.987, p = 0.32, \eta^2 = 0.01$ or interaction of time and condition on vulnerability Wilk's $\lambda = 0.996, F(1, 63) = 0.284, p = 0.60$ multivariate $\eta^2 = 0.004$. Change scores suggest that seven participants in the control group and eight in the experimental group met criteria for Jacobson et al., (1984) reliable change.

4. Discussion

The current study was designed to evaluate the impact of having access to the FIATQ and being instructed to engage in rule 1 of FAP while also expanding upon previous findings that utilized a FAP analog task (Haworth et al., 2015; Manbeck et al., 2020). Findings

from the current study provide insight into the potential process of change in FAP. The impact of watching for CRBs significantly impacted the participant's perceptions of research assistant responsiveness over time but had no impact on the probability or magnitude of participant emotional vulnerability or fear of intimacy with the research assistant. Notably, this effect indicated that research assistants were initially less responsive when they watched for CRBs but that the differences disappeared over time. Additionally, higher participant fear of intimacy, a conceptually important construct for FAP research, significantly predicted less vulnerability as more profound disclosures were prompted but had no impact on questions related to more mundane disclosures or perceptions of research assistant responsiveness.

The current study finds no evidence that FAP can be successfully implemented by only utilizing Rule 1. Component analysis can regularly be used to simplify treatments which can minimize the complexities of training and facilitate dissemination. The data from the current study indicates that it may be detrimental to watch for CRBs with no further instructions. Thus, there is indication that it may be necessary to have training beyond just watching for CRB and conducting functional analysis. With that said, the findings from the current study must be contextualized by the fact that there was no guidance, instruction, or consent to facilitate behavior change. Rather, in the context of the experiment, the instructions were simply for both individuals in the room to become emotionally closer to one another. Regardless, the findings indicating, at best, no difference in fear of intimacy after 45 min indicate that further instruction beyond Rule 1 is needed to create differential change in fear of intimacy in a short time. This finding represents a notable barrier to those attempting to identify and implement more simplified instructions for successful implementation of FAP, as it implies the need for more robust training in the identification of CRBs and perhaps meaningful training in the other rules of FAP.

Collaborative case conceptualizations may influence the impact of watching for CRBs. While this study did not provide a thorough case conceptualization, participants' responses on the FIAT-Q offered a quick analog for the processes of developing a collaborative conceptualization of CRBs. In contrast to the research team's hypotheses, findings indicate that research assistants who had access to the FIAT-Q were viewed as not being as responsive as those who did not have access to the tool initially. This finding may reflect the importance of fully informed and collaborative case conceptualization in FAP. Consistent with both theoretical (Callaghan & Follette, 2020) and empirical writings (Maitland & Lewis, 2022) on the dangers of emphasizing connection over an idiographic case conceptualization, findings from the current study may indicate that clinicians focusing on connection could miss the proverbial mark in their responses and may be less effective in shaping behavior. While these differences disappeared over time, participants still found research assistants not watching for CRBs to be more effective responders throughout the experiment.

The FIAT-Q, when used alone, may have limited treatment utility. Treatment utility refers to the degree to which an evaluation contributes to better outcomes (Hayes et al., 1987). In the clinical context, the primary objective of Rule 1 is to identify in-session behaviors of interest accurately. Therapists need effective strategies with high treatment utility to aid in the identification of clinically relevant behaviors. The current results could be interpreted as

suggesting the limitation of questionnaires in the absence of follow-up questions to refine understanding of behaviors of interest. To that end, while the FIAT-Q may be a helpful tool, researchers and clinicians alike are cautioned that in the absence of a clinical conversation around case conceptualization or the complete FIAT system, the treatment utility of the tool may be limited.

The results from the current study provide empirical support for the link between vulnerability and fear of intimacy. Cordova and Scott (2001) defined vulnerable behaviors as repertoires that emerge after an interpersonal history of punishment, negligence, and censorship. This dynamic consolidates persistent and pervasive patterns of intimacy avoidance, commonly known as fear of intimacy. In contrast to the other variables assessed in this study, fear of intimacy did predict participants' unwillingness to show vulnerability to research assistants in the second half of the experiment when questions were focused on inviting participants to share secrets, deep desires, memories, or repertoires deeply engrained in intimacy (Wetterneck & Hart, 2012). Thus, to invite and change vulnerable behaviors, practitioners must effectively identify triggers for fear of intimacy, keeping in mind that they depend on individuals' particular histories.

Interestingly, fear of intimacy had minimal impact on vulnerability in the early parts of the experiment. Two possible interpretations are indicated. First, it is possible that the questions themselves do not create a context in which vulnerability is indicated. As such, the utility of the questions and paradigm utilized in the current study are called into question. A second interpretation suggests that it is typical to limit vulnerability until an individual can reasonably assess how another will respond to their disclosure. The second interpretation is consistent with the writings suggesting that responsiveness is the core organizing theme for studying relationships and well-being (Reis, 2012).

In our opinion, the observed reduction in fear of intimacy with the research assistant solidifies the utility of the current laboratory paradigm as a valuable analog to FAP. While multiple studies have utilized the "Fast Friends Procedure" to study processes thought central to FAP (Manbeck et al., 2020) or as a FAP analog (Haworth et al., 2015), the current study was the first to assess fear of intimacy in the context of the procedure. In doing so and showing that fear of intimacy decreased as a function of the paradigm, researchers can comfortably link the paradigm to theoretical (Maitland et al., 2017; Maitland & Gaynor, 2012; Wetterneck & Hart, 2012) and empirical (Maitland, Petts, et al., 2016) writings detailing the importance of fear of intimacy in FAP. While significantly more research needs to be conducted to better understand how CRBs manifest in the fast friend's procedure, it is meaningful that the procedure can impact core constructs of interest in FAP. In contrast to conducting therapeutic trials, the current methodology can use research assistants at a much earlier stage of training and consequently may greatly expedite research progress on a treatment that has arguably gotten far ahead of the data, which has not always been the case (Gaynor, 2002).

The results of the current study must be interpreted within the context of several methodological and theoretical limitations. While FAP has five rules, this study focused specifically on implementing Rule 1 of FAP to decrease fear of intimacy by instructing

research assistants to watch for CRBs. However, the therapeutic analog is overtly non-therapeutic in that there are no instructions to facilitate change, and the instructions provided to the research assistant and participant simply instruct them to attempt to get close to one another. Given these instructions, it is possible that both CRB1s and CRB2s were reinforced as responding well to all behaviors may be what is viewed as the best way to build closeness. Consequently, reinforcing all behaviors, rather than just CRB1s, may explain the lack of significant differences between conditions. The lack of instructions to respond to CRBs contingently may have limited the paradigm's utility as a therapeutic FAP analog, as the paradigm effectively decreased fear of intimacy but did not capture how FAP's underlying processes promote behavior change through differential reinforcement of CRBs. Thus, while the paradigm is a useful analog, it is not perfect, and researchers should be cautious about using the experimental task without tailoring it to meet the exact needs of the study. Researchers may consider using alternative measurement strategies, such as physiological measurement (Maitland et al., 2023) as multi-modal approaches to inquiry can facilitate increased convergent validity.

The level to which the research assistants engaged in Rule 1 of FAP can be disputed. Despite being trained in FAP techniques, especially how to watch for CRBs, it is difficult to argue that simply having an awareness of interpersonal tendencies is equivalent to fully completing a functional analysis and understanding how reported deficits impact an individual's life and show up in a room. Consequently, the argument can be made that the current study may not have investigated FAP's first rule but instead investigated the impact of incomplete functional analyses on the implementation of FAP's first rule. While this is a notable limitation, it may also provide some proverbial grist for the mill in the ongoing dialogue surrounding the adequacy of focusing relationship science-informed CRBs (Maitland et al., 2017) compared to a completely idiographic approach to identifying CRBs.

The impact of giving the FIAT-Q to only one group is not fully understood. Although results showed a time-by-condition effect of knowing participants' interpersonal needs on responsiveness, findings should be interpreted cautiously as the FIAT-Q was administered only to the experimental group. This differential administration could lead to assessment reactivity for participants in the experimental group. That is to say, it is possible that individuals who completed the FIAT-Q became more aware of their interpersonal limitations, and this may have impacted how they reacted to the responsiveness of research assistants. Future studies may add an additional control group where individuals complete the FIAT-Q, but research assistants do not review the questionnaire to control this confound experimentally.

The findings and limitations of the current study suggest multiple avenues for better understanding the impact of the different rules of FAP. The instructions in the current study suggest that research assistants may have engaged in continuous validation of all behavior but did not facilitate the blocking of the CRB1s and prompting of CRB2s. Future studies should seek to emulate a context that better maps onto the therapeutic environment to gain further insight into the therapeutic effects of Rule 1. Specifically, researchers may want to explicitly include instructions to engage in Rule 3 of FAP or provide instructions that the goal of the interaction is to become better in interpersonal situations and, as a result, become

closer to the research assistant. It is possible that the inclusion of Rule 3 or clarification of instructions could lead to higher levels of vulnerability and lower levels in fear of intimacy based on the condition that individuals are assigned to. Alternatively, researchers could assess Rule 1 in an actual therapeutic context either through a multiple baseline design or by using a supportive listening control condition, such as those used by Maitland and Gaynor (2016), in a between-group study.

In conclusion, many studies have attempted to understand the mechanism of action in FAP, but few studies have systematically manipulated therapist behaviors that map onto the 5 rules. The current study was designed to examine the impact of the first rule of FAP on fear of intimacy between participants and research assistants. Findings suggest no statistical difference between watching for CRBs or being naïve to CRBs. Responsiveness changed over time based on the experimental condition by differentially increasing compared to the control condition at a level below that found in the control condition. Vulnerability and fear of intimacy did not show change over time based on condition. Further research is needed to identify what led to the current study's findings and the necessary and sufficient elements to implement FAP effectively.

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Table 1

Mean scores and standard deviations of measures across time points.

Measure	Control			Experimental		
	Pre	Mid	Post	Pre	Mid	Post
Fear of Intimacy	79.45 (20.05)			84.39 (26.08)		
Fear of Intimacy With the RA	55.50 (12.79)		44.88 (12.27)	58.77 (14.03)		47.00 (13.44)
Vulnerability		54.67 (8.67)	58.41 (9.44)		52.31 (8.33)	57.44 (8.18)
Responsiveness		63.95 (5.60)	66.03 (4.54)		60.33 (8.73)	65.75 (4.39)

Note: Fear of Intimacy = Fear of Intimacy Scale, Fear of Intimacy With the RA = Fear of Intimacy With the Therapist Scale, Vulnerability = Vulnerable Self Disclosure Scale, Responsiveness = Received Responsiveness Scale. Pre data was collected before any experimental procedures. Mid data was captured after 10 questions or 22.5 min, post data was completed after the end of the experiment.